

INFLUENCE OF PROJECT MANAGEMENT PRACTICES ON PERFORMANCE OF PUBLIC PRIVATE PARTNERSHIP PROJECTS IN KIAMBU COUNTY, KENYA

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Abstract: The Public Private Partnership Projects are important in implementation of diverse projects in the public sector as the model assist in the achievement of cost efficiencies, tapping into private sector capacity for efficiency, innovativeness, risk management, technical expertise, economies of scale, and management acumen. The PPPP is also associated with creation of a platform for government to undertake projects despite shrinking budgets for such projects. However, despite the advantages and benefits of the PPPP there have been diverse performance challenges in these projects. Kiambu County has several PPPPs projects including development of Muguga agri-city. The city is meant for the agriculture focused industrial park. Other PPPPs in county of Kiambu include the county government of Kiambu partnership with Sasini to revive the production of coffee and Macadamia nuts. These projects continue to face diverse performance challenges such as quality of the projects, cost overruns and community disagreements amongst others. This study examined the influence of project planning, community management, project monitoring and project funds management as the project management practices, on the performance of public private partnership projects in Kiambu County. This study utilized the ex post facto research design. In particular, the study will utilize the correlation research design type. The target population of this study comprised of 440 respondents drawn from county government of Kiambu as senior officials and community representatives. A sample size of 205 was used comprising of 175 community representatives and 30 officials. Structured questionnaires were used for the study to collect data. Descriptive statistics and inferential analysis was conducted. The study found that; project planning, community participation, project monitoring, and project funds management had positive significant correlation with project performance. However project planning and community participation depicted a high magnitude of correlation while project monitoring and projects funds management had a moderate magnitude correlation. The four predictors accounted for 68.2% of change in performance. The study also recommended that similar studies to be done in other counties to confirm the results. Further the study recommended further studies to identify the other project management practices that explain the 31.8% change of performance.

Keywords: public private partnership projects, project management practices, community participation.

I. INTRODUCTION

The Public private Partnership Projects (PPPPs) are important in the conceptualization and implementation of complex projects. These projects are complex due to the nature, scope, project funds requirements, and technical requirements amongst other dynamics. [1] indicated that cost implication is one of the reasons for engaging in public private partnerships in project execution. In respect of the use of PPP as means of risk management, [2] noted that the PPP directs the risk to the party with the capacity and interest to minimize or eliminate the risk that may occur in project

implementation. These capacities may be project funds or technical capacity amongst others. [3] further noted that governments also engage in the PPP due to seeking to capitalize on the project funds, commercial, creative and managerial strengths of the private sector and that may be lacking in the government.

Due to the purposes and the benefits of the PPPP, the performance of such projects is of importance to diverse communities. The public private partnership refers to the cooperation and involvement between the private and public sectors in the implementation of the projects [2]. In respect to performance of PPPP, amongst the aspects that are indicative of performance in this type of projects include management in various aspects. These aspects include procurement, quality, scope, cost and time management [2]. In Turkey, the PPPPs have been used for the purposes of delivering infrastructural projects in the country [4]. Within the 2008-2013 period, Turkey accounted for 47% of the PPPPs signed by the world bank within countries in Europe and Central Asia (ECA) with a value of forty three billion United States Dollars. [4] further noted that despite the role of PPPPs in development of infrastructure in the country, the projects face challenges such as currency risks, legal risks and inflation aspects amongst others.

The PPPPs face numerous challenges in Africa. In Ghana, [5] noted that the PPPPs have been used in the road construction sector in the country with a view of gaining economic and technical efficiencies in the sector. Amongst the performance challenges that were noted in the PPPPs in road construction sector in Ghana included lack of adequate legal framework for PPP implementation and there was limited transfer of skills to the government [5]. The PPPPs in Kenya trace their origins in 1959 through the Mtwapa and Nyali Bridges Concessions which was signed in the year 1959 [6]. Other projects that have been undertaken under the PPPPs include Orpower-Olkaria section III geothermal plant, Mumias power plant, JKIA Cargo Terminal, Port of Mombasa Grain Terminal and Railway project between Uganda and Kenya amongst others [6]. The PPPPs have been undertaken in Kenya with a view of meeting up the projects aligned with the country's vision 2030 despite the project funds constraints of funding the developmental and recurrent budget by the government [7].

The public private partnerships projects have been undertaken in Kiambu County are numerous in nature. Public Private Partnership Unit (2019) reports that amongst the critical PPPPs being undertaken in Kiambu county included development of Muguga agri-city. The city is meant for the agriculture focused industrial park [8]. Other PPPPs in county of Kiambu include the county government of Kiambu partnership with Sasini to revive the production of coffee and Macadamia nuts. Other projects in different phases of conceptualization and implementation include the Karemenu Dam, Ruiru Two Dam, Ruiru-Githunguri-Uplands road, James Gichuru-Rironi road, Gitaru-Ndenderu-Wangige and Ruaka-Banana-Limuru-Thogoto-Gikambura-Mutarakwa roads [8].

II. STATEMENT OF THE PROBLEM

The Public Private Partnership Projects are important in implementation of diverse projects in the public sector. The performance of PPPPs is important since the model assist in the achievement of cost efficiencies, tapping into private sector capacity for efficiency, innovativeness, risk management, technical expertise, economies of scale, and management acumen [1], [2]. The PPPP is also associated with creation of a platform for government to undertake projects despite shrinking budgets for such projects [9]. Other advantages associated with need for the PPP in project implementation include faster execution timelines, cost efficiencies, improved quality of work, and achievement of economies of scale in project implementation

However, despite the advantages and benefits of the PPPP there have been diverse performance challenges in these projects. Kiambu County has several PPPPs projects including development of Muguga Agri-city. The city is meant for the agriculture focused industrial park [8]. Other PPPPs in County of Kiambu include the county government of Kiambu partnership with Sasini to revive the production of coffee and Macadamia nuts. These projects continue to face diverse performance challenges such as quality of the projects, cost overruns and community disagreements amongst others. This was in a view of filling the prevalent gaps in the study area. Other scholars who have examined PPPPs include [10] in relation to PPPPs in Kajiado County, [11] in respect to agricultural projects, [12] in respect to county government of Uasin Gichu, and [13] in respect to water projects amongst others.

III. OBJECTIVES

The main objective of the study was to examine the influence of project management practices on performance of public private partnership projects in Kiambu County, Kenya. Specifically the study sought to:

- (i) To establish the influence of project planning on the performance of public private partnership projects in Kiambu County.
- (ii) To examine the influence of community participation on the performance of public private partnership projects in Kiambu County.
- (iii) To examine the influence of project monitoring on the performance of public private partnership projects in Kiambu County.
- (iv) To examine the project funds management on the performance of public private partnership projects in Kiambu County.

IV. THEORETICAL REVIEW

In explaining the relation to theories used to guide this study, the study used Stakeholders' Theory and Dynamic capabilities Theory. The stakeholders' Theory argues that organizations have moral and ethical obligations to consider their shareholders in their operations and activities. The theory asserts that organizations can't only undertake their operations at the expense of the interests and welfare of its shareholders. The organization must therefore continually examine and address the needs of its shareholders in its operations. The theory is applicable to this study in diverse ways. The project performance is dependent on the diverse communities in project execution. These communities would include contractors, sub-contractors, financiers, project managers, operations personnel and many others. The project managers and other implementers must consider the interests and welfare for these communities in order to enhance project performance.

The Dynamic capabilities theory examines the manner in which a firm uses resources, and competences in adopting to the changing circumstances within the operational platform. The theory thus notes that there could be configurations and diverse combinations in the use of resources for the purposes of addressing the organizational objectives. The theory is applicable in this study since the organizations need to use the resources they have and need to plan for these resources. The theory is thus useful in examining the manner in which project planning and project funds management influences the project performance aspects.

V. CONCEPTUAL FRAMEWORK

In meeting the general objective of the study, project planning, community participation, project monitoring and funds management were used as the independent variables while performance of public private partnership projects was used as the dependent variables. The association between the independent variables and the dependent variables is as shown in Figure1.

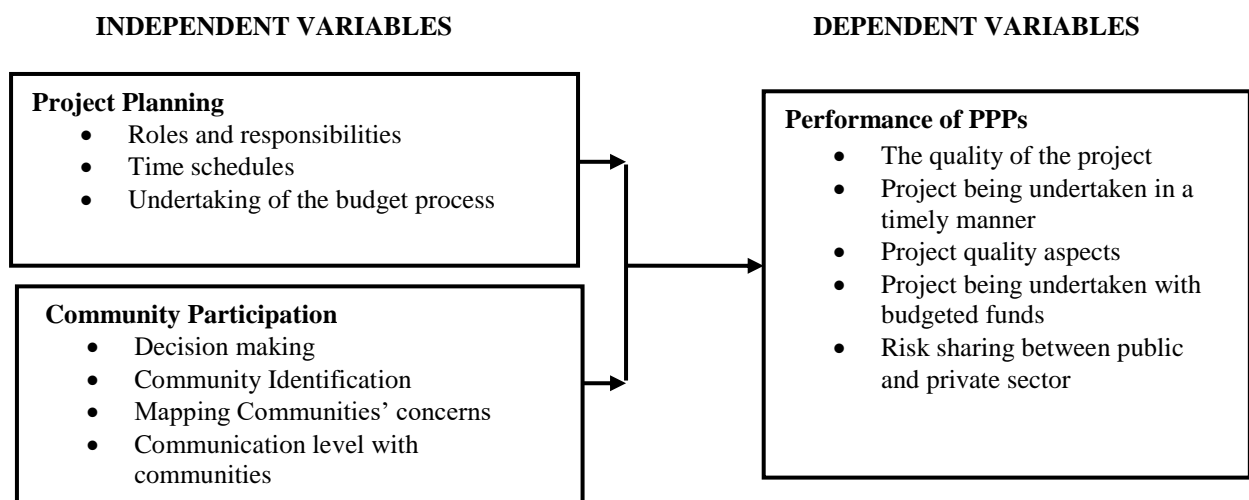


Figure 1: Conceptual Framework

VI. CRITIQUE OF LITERATURE REVIEW

[14] studied the importance of project planning on the performance of last mile. The researcher sought to use both the qualitative and quantitative research methods in his study. However, while the study would have benefited from the qualitative data analysis, the study fails to illustrate the qualitative research findings in a detailed manner. The study asserts the importance of the project planning on the performance of the last mile. The study then lists the project planning indicators that it asserts have influence on the project performance without illustrating the exact manner that it does that. Similarly, [15] gave their conceptualization of community participation but equally fail to illustrate the manner in which it links to the project performance.

VII. METHODOLOGY

The study adopted a correlational research design. This research design involves establishing the association or relationship that exists between variables of a study [16]. This research design answers questions such as how and why and therefore is the most relevant in meeting the study objectives of this study [17]. This study sought to establish the relationship between the study variables and therefore the choice of the research design. This study targeted people with the knowledge on the PPPs project in Muguga Agri City and Sasini in Kiambu County. The targeted population was 440 people stratified into 375 community representatives within the specific projects and the remaining 65 will be organization officials. Sample size was computed using the Fishers formula [18]. A sample of 205 respondents was obtained comprising of 175 community representatives and 30 officials. The structured questionnaires refer to a set of written questions study variables that provides possible answers alongside the questions [19]. The study used structured questionnaires. To obtain the reliability of the instrument Crobach alpha coefficient was used in the pilot study were a Crobach coefficient of a Crobach alpha coefficient of 0.786 was obtained with shows that our instrument is reliable as supported by [20]. Multiple regressions was used as shown

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Whereby; Y represents Performance of Public Private Partnership Projects

X₁, X₂, X₃ and X₄ represents project planning, community management, project monitoring, and project funds management respectively.

VIII. FINDINGS AND DISCUSSION

The study distributed the questionnaires to the sample size of 205 respondents comprising of community representatives and organization officials. Out of 205 questionnaires distributed, 182 were filled and returned representing 88.8% response rate. [20] explained that a response rate of 70% and above is good for a study to yield results that are favorable.

A. Findings on effect of Project Planning on Performance of PPP projects

The influence of Project planning was on performance of PPP projects in Kiambu County analyzed so to explain the first specific objective of the study in establishing the influence of Project planning on the Performance of public private partnership projects. Table I below shows the statistics.

TABLE I: INFLUENCE OF PROJECT PLANNING ON PPP PROJECTS.

Indicator	Mean	Std Dev
Involvement of inputs from diverse project team member	3.86	0.88
Mapping of risks that may be faced during project execution	3.89	0.78
Planning on time schedules of the project	3.88	0.95
Undertaking of the budget process	4.29	0.45
Planning on the action plan to be undertaken	4.00	0.56
Average	3.98	0.72

The descriptive statistics showed some significant evidence to support that project planning influenced performance of Public Private Partnership projects in Kiambu County supported by mean (3.98) and a variation of opinion (SD 0.72). specifically the study indicate that there was significant evidence of the involvement of inputs from project team members (mean = 3.86, SD = 0.88); mapping of risks during project execution (mean =3.89, SD=0.78); planning on time schedules

for the project as supported by (mean = 3.88, SD = 0.95); the budget process was undertaken, and there was some planning on the action plan to be taken. This was proved by of means of 4.29 and 4.00 respectively suggesting having important significant evidence of the indicators.

B. Findings on effect of Community Participation on Performance of PPP projects

The second objective of the study was to examine the influence of community participation on the performance of PPP projects in Kiambu County. The descriptive statistics from Table II below seek to explain the influence of community participation of performance of PPP projects.

TABLE II: COMMUNITY PARTICIPATION

Indicator	Mean	Std Dev
Involvement of communities in decision making	4.01	0.72
Identification of diverse communities that may influence the project	3.86	0.55
Mapping the concerns of diverse stakeholders	3.98	0.62
Communication level with communities on information regarding project dynamic	3.97	0.45
Continuous monitoring of the communities' changing dynamics.	3.63	0.58
	3.89	0.58

From the descriptive statistics the study found some significance evidence that suggested community participation influenced performance greatly (mean = 3.89, SD = 0.58). Thus the descriptive statistics suggested that community participation had a significant influence on performance of PPP projects in Kiambu County. Specifically the indicated that; existence of significance evidence of communities involvement in decision making process (mean = 4.02, SD = 0.72), some slight evidence suggesting identification of diverse communities as stakeholders' of the project (mean = 3.86, SD = 0.55), significant evidence that various stakeholders were mapped (Mean =3.98, SD = 0.62) , there was statistical evidence that suggested there was communication regarding project dynamics (mean = 3.97, SD = 0.45), and finally some slight evidence to suggest that there was continuous monitoring of the communities changing dynamics (mean = 3.63, SD = 0.58).

C. Correlation Analysis

Correlation analysis was done using Pearson Coefficient method at 0.05 level of significance to establish the existence of a relationship between the Dependent variable and the independent variables. Table III below shows the results obtained. This was necessary to detect simple linear relationship as it also act as building block for multiple regression model [21].

TABLE III: CORRELATION MATRIX

Correlations		Performance of Projects	Project Planning	Community Participation	Project Monitoring	Project Funds mgt
Performance of Projects	Pearson Correlation	1	.653**	.627**	.498**	.487**
	Sig. (2-tailed)		.000	.000	.000	.000
	N		182	182	182	182

****.** Correlation is significant at the 0.01 level (2-tailed).

*****. Correlation is significant at the 0.05 level (2-tailed).

From Table III above the Project planning showed a positive significant correlation with performance of projects (r = 0.653, p <0.05). Project planning has 65.3% influence of performance of projects in Kiambu County. The results also depicted a strong relation since r = 0.653 nears the threshold of +1. These results concur with the findings of [22] that planning had a positive significant correlation with performance.

Community participation had a positive significant correlation with performance of projects in Kiambu County (r = 0.627, p<0.05). The Predictor also had a strong correlation with performance of project as it influences 62.7% of change in performance.

D. ANOVA

The study obtained ANOVA to establish the fitness of the model. The assumption is there exist at least one of the predictors that is significant in explaining the dependent variable. The Table IV below shows the results obtained.

TABLE IV: ANOVA RESULTS.

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	139.378	4	34.8445	62.3113	.000 ^b
1 Residual	98.984	177	0.5592		
Total	238.362	181			

a. Dependent Variable: Performance of PPP projects

b. Predictors: (Constant), Project Planning, Community participation, Project Monitoring, and Project Funds.

From Table IV above F (4, 177) was 62.3113 and the P-value was 0.000 this means that there is some significant evidence to suggest at least of the variables in Project Planning, Community participation, Project Monitoring, and Project Funds management is useful in predicting the rate of performance of PPP projects in Kiambu County. Thus we those results the Independent variables were regressed against the dependent variables.

E. Regression Coefficients

A regression model is used to assess and depict a cause-effect relationship that has been, initially been depicted by the correlation analysis. The regression model gives the magnitude of the cause-effect relationship as well as the direction of the relationship. This is achieved through the estimation of the coefficients of estimations attributed to the explanatory variables. Table V below shows the results of coefficient analysis

TABLE V: REGRESSION COEFFICIENTS

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error			
(Constant)	3.002	.729		9.508	.000
1 Project Planning	0.729	.124	.687	6.104	.000
Community Participation	0.543	.077	0.479	7.137	.000

Dependent Variable: Performance of PPP Projects

With the above results, our regression model can be fitted as below:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

$$\text{Project Performance} = 3.002 + 0.729 \text{Project Planning} + 0.543 \text{Community Participation}$$

IX. CONCLUSION

The study concludes that Project Planning is significant for performance of any projects. The project planning serves a crucial role in the performance of the public private partnership projects in Kiambu County. Key participants of the project should be involved in coming up with project plans. It is important to identify the possible risks and develop mitigation strategies to ensure they don't affect the performance. The planning should include time schedules, budget, as well the action plan. These will ensure improvement of performance in projects. The project manager should possess good planning skills and involve diverse project team members in coming up with a detail plan for the project. A good project plan is a good road map to success and so is the performance. The plan should include all the details required not forgetting the important metrics of schedule, time, cost, quality, and satisfaction.

Community participation is highly significant for public private partnership projects. Communities involvement in decision making process is a good practice that will help eliminate risks of conflicts from stakeholders' satisfaction. Communication and feedback plays a key role as the communities are updated on the progress of the project as well as matters arising. Community as stakeholder's play a big role in monitoring the progress as well to ensure the project achieves the desired object. Community as stakeholders should be involved in the decision making process to ensure conflicts or risk that may arise due to a certain decision are eliminated as early as possible. This will ensure smooth implementation of the project as per the plan. Otherwise the community will affect the overall performance of the project

as they are a big risk. Communication is crucial to ensure the communities as stakeholders are updated on the progress as well as matters arising from the project. The frequency and mode of communication should be made clear from the initial stages of the projects. A clear communication plan and a identification of stakeholder's concerns will help to improve the performance of the project.

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